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REMARKS/ARGUMENTS

Claims 1-12 are pending in this Application.

The Examiner rejected claims 1-9 under 35 U.S.C. § 102(b) as being anticipated by Wajima (U.S. 6,232,699). The Examiner rejected claims 10-12 under 35 U.S.C. § 103(a) as being unpatentable over Wajima. Applicants respectfully traverse the rejections of claims 1-12.

Claim 1 recites:

"An energy trap piezoelectric resonator component utilizing third overtone of a thickness longitudinal vibration, comprising:
a piezoelectric substrate having first and second major surfaces and polarized in a direction of thickness between the first and second major surfaces;
a first vibrating electrode disposed on a portion of the first major surface of the piezoelectric substrate; and
a second vibrating electrode disposed on a portion of the second major surface of the piezoelectric substrate and facing the first vibrating electrode with the piezoelectric substrate interposed therebetween; wherein
each of the first and second vibrating electrodes has a substantially elliptical shape, and wherein a flattening ratio a/b is within a range of about 1.2 to about 1.45, where a represents the major axis diameter of the substantially elliptical shape and b represents the minor axis diameter of the substantially elliptical shape; and
first and second casing substrates respectively laminated on top and bottom surfaces of the piezoelectric substrate, wherein vibrating cavities are provided between the first vibrating electrode and the first casing substrate and between the second vibrating electrode and the second casing substrate." (emphasis added)

Applicants' claim 1 recites the feature of "each of the first and second vibrating electrodes has a substantially elliptical shape ... wherein a flattening ratio a/b is within a range of about 1.2 to about 1.45."

First, in the Response to Arguments section on page 4 of the outstanding Office Action, the Examiner alleged, "It is the Examiner's position that on one hand, at sight, the Figure 12a [of Wajima] shows a ratio a/b larger 1.2."

When a reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little

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value. See MPEP § 2125 and *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. "[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue."). That is, Applicants respectfully submit that it is improper for the Examiner to allege that **Fig. 12a** of Wajima teaches a specific flattening ratio because Wajima fails to disclose that the drawings are to scale.

Assuming *arguendo* that Wajima disclosed that the drawings were to scale, Applicants do agree with the Examiner's allegation that **Fig. 12a** of Wajima shows flattening ratio *a/b* larger than 1.2. However, Applicants' claim 1 recites the feature that the flattening ratio *a/b* is within the range of about 1.2 **to about 1.45**. A simple measurement of the top electrode in **Fig. 12a** of Wajima shows that *a* has a value of 4 cm and *b* has a value of 2 cm, which **results in a flattening ratio of 2**. A simple measurement of the bottom electrode in **Fig. 12a** of Wajima shows that *a* has a value of 2.8 cm and *b* has a value of 1.4 cm, which also **results in a flattening ratio of 2**. Thus, Applicants respectfully submit that Wajima clearly fails to teach or suggest the feature of "each of the first and second vibrating electrodes has a substantially elliptical shape ... wherein **a flattening ratio a/b is within a range of about 1.2 to about 1.45**" (emphasis added) as recited in Applicants' claim 1 because a flattening ration of 2 is clearly not in the ranges of about 1.2 to about 1.45.

Second, in the Response to Arguments section on page 4 of the outstanding Office Action, the Examiner alleged, "On the other hand, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233."

The Examiner is reminded that "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." *In re Antonie*, 195 USPQ 6 (CCPA 1977) and MPEP §2144.05(II)(B). Thus, Applicants respectfully request that the Examiner provide a reference which teaches that the flattening ratio was an art recognized result-

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effective variable at the time of Applicants' invention.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Wajima.
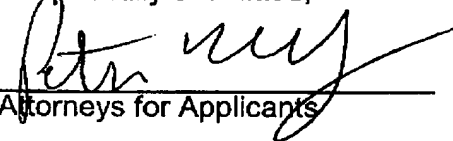
Accordingly, Applicants respectfully submit that the prior art of record, applied alone or in combination, fails to teach or suggest the unique combination and arrangement of elements recited in claim 1 of the present application. Claims 2-12 depend upon claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Dated: August 8, 2005

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